

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following comments is respectfully requested.

Claims 1-18 are pending in the present application. Claims 1, 7, 13, and 18 are amended by the present amendment.

Applicants respectfully submit that amendments to the claims find support in the application as originally filed. Thus, no new matter is added.

In the outstanding Office Action, Claims 1-18 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 6,529,899 to Kraft in view of Payne "Semantic Web in UDDI" (herein "Payne") and U.S. Patent 5,862,325 to Reed. Applicants respectfully traverse the rejection.

Claim 1 is directed to a Web service coordination plan creating apparatus that includes, in part, a first storage section which stores user data that makes predicates indicating states of a user, a second storage section which stores a database that associates preconditions representing, in predicate form, necessary conditions for users to use Web services via an information communication network, with post conditions representing, in predicate form, the effects of invocation of the corresponding Web services, and a coordination plan creating means for acquiring matching user data. In addition, the coordination plan creating means is means for acquiring from the second storage a combination of Web services which satisfies the user's request by logically combining the preconditions and post conditions for a plurality of Web services including a first Web service having the preconditions matching with the user data and a second Web service having the post conditions matching with the user data. In addition, the coordination plan creating means is means for creating a Web service linking plan where the first Web service included in the combination is arranged to be performed after the second Web service

included in the combination, based on an order of the logical combination. Claims 7 and 13 include similar features.

Thus, in an embodiment according to the independent claims, when a state of a user and a user's request, which is expected to be obtained by sequentially executing the plurality of Web services, are input, the execution sequence of Web services (e.g., a Web service linking plan) which can change the user's state from the present state to the target state is automatically calculated and output. The execution sequence of web services is called a plan.

Kraft describes a system that finds a single Web service including a keyword input by the user. In Kraft, the user has to combine the plurality of Web services manually by using the system. The system of Kraft does not automatically calculate the execution sequence of Web services. Thus, Kraft also fails to teach or suggest the features of the claimed inventions.

Reed describes a system that executes a sequence of Web services. The execution sequence of Web services (e.g., Web service linking plan) is previously calculated or manually developed by the user. Therefore, the system described by Reed does not include the features required by the presently claimed inventions. In addition, Reed does not disclose means for automatically constructing a Web service.

Payne describes a method for dealing with the meaning of the Web service using a search engine which is one of the Web services. According to Payne, it is possible to write the precondition and post condition of the Web service. However, Payne merely indicates writing the precondition and post condition of a single Web service. Unlike the present invention, Payne does not disclose means for automatically creating a Web service linking plan for an execution sequence of Web services including a plurality of Web services.

As stated above, the references, whether taken individually or in combination, fail to teach or suggest a method of automatically creating the execution sequence of Web services.

Therefore, the claimed inventions, which are configured to automatically create the execution sequence of Web services comprised of the plurality of Web services, cannot be achieved even if the three references are combined.

The present invention does not merely find combinations of Web services, but automatically calculates the execution sequence of Web services (e.g., Web service linking plan) which is logically capable of changing the user's present state which is regarded as the initial state into the target state. The present invention, unlike Reed, does not relate to a system for executing the pre-created execution sequence of Web services in the actual system.

Accordingly, Applicants respectfully submit that Kraft, Payne, and Reed, whether taken individually or in combination, fail to teach or suggest "a coordination plan creating means for ... creating a Web service linking plan where the first Web service included in the combination is arranged to be performed after the Web service included in the combination, based on an order of the logical combination," as recited in amended independent Claim 1, and as similarly recited in independent Claims 7 and 13.

Accordingly, Applicants respectfully submit that independent Claims 1, 7, and 13, and claims depending therefrom, are allowable.

Consequently, in light of the above discussion and in view of the present amendment, this application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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